

| <b>INFORMATION DISCLOSURE<br/>CITATION IN AN<br/>APPLICATION</b><br><br><b>(PTO-1449)</b> |            | ATTY. DOCKET NO.<br>110347.302US4      | SERIAL NO.<br>Unassigned |                 |               |             |
|---|------------|--|--------------------------|-----------------|---------------|-------------|
|   |            | <b>APPLICANT</b><br>Edward A. BELBRUNO |                          |                 |               |             |
|   |            | FILING DATE<br>herewith                | GROUP                    |                 |               |             |
| <b>U.S. PATENT DOCUMENTS</b>  |            |  |                          |                 |               |             |
| EXAMINER'S INITIALS   | PATENT NO. | DATE                                   | NAME                     | CLASS           | SUBCLASS      | FILING DATE |
| <i>an</i>   | 6,059,233  | 05/09/00                               | Koppel et al.            |                 |               | 12/30/97    |
|   | 5,681,011  | 10/28/97                               | Frazier                  |                 |               | 08/24/93    |
|   | 5,595,360  | 01/21/97                               | Spitzer                  |                 |               | 03/25/94    |
|   | 5,568,904  | 10/29/96                               | Brock et al.             |                 |               | 08/28/92    |
|   | 5,507,454  | 04/16/96                               | Dulck                    |                 |               | 01/28/91    |
|   | 5,506,780  | 04/09/96                               | Montenbruck et al.       |                 |               | 10/23/92    |
|   | 5,452,869  | 09/26/95                               | Basuthakur et al.        |                 |               | 12/18/92    |
|   | 5,433,726  | 07/18/95                               | Horstein et al.          |                 |               | 05/28/92    |
|   | 5,421,540  | 06/06/95                               | Ting                     |                 |               | 08/26/92    |
|   | 5,199,672  | 04/06/93                               | King et al.              |                 |               | 05/25/90    |
|   | 5,163,640  | 11/17/92                               | Altobelli                |                 |               | 12/14/90    |
|   | 5,158,249  | 10/27/92                               | Uphoff                   |                 |               | 10/12/90    |
| <i>an</i>   | 5,120,008  | 06/09/92                               | Ramohalli                |                 |               | 07/28/89    |
| <del>an</del>   | 6,067,672  | 11/26/91                               | <del>Bouzat</del>        |                 |               | 04/24/90    |
| <i>an</i>   | 5,064,152  | 11/12/91                               | Maute                    |                 |               | 12/05/89    |
|   | 4,618,112  | 10/21/86                               | Keigler                  |                 |               | 04/15/83    |
|   | T100,604   | 05/05/81                               | Crill et al.             |                 |               | 01/29/79    |
|   | 4,599,697  | 07/08/86                               | Chan et al.              |                 |               | 08/11/82    |
|   | 4,288,051  | 09/08/81                               | Goschel                  |                 |               | 04/19/79    |
|   | 3,676,581  | 07/11/72                               | Swet                     |                 |               | 02/01/71    |
| <i>an</i>   | 3,532,298  | 10/06/70                               | Swet                     |                 |               | 10/31/67    |
| EXAMINER  |            |  |                          | DATE CONSIDERED | <i>7/8/04</i> |             |

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

## SHEET 2 OF 2

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|  |   | FILING DATE<br><b>herewith</b>                | GROUP                           |
| <b>OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>  |   |   |                                 |
| <p><i>(initials)</i> 03 April 2001, International Preliminary Examination Report from PCT/US98/08247.</p> <p>David, L., "The Future In Space Toll Roads", <i>space.com</i>, July 27, 2000 XP002161884.</p> <p>"AsiaSat Salvage Idea Originated Outside Hughes", <i>Space views</i>, online, January 16, 1998, XP002161885.</p> <p>Kawaguchi et al., "On Making Use of Lunar and Solar Gravity Assists in Lunar-A, Planet-B Missions", <i>Acta Astronautica</i>, 1995, Vol. 35, Nos. 9-10, pp. 633-642.</p> <p>Belbruno, E., "Ballistic Lunar Capture Transfers Using the Fuzzy Boundary and Solar Perturbations: A Survey", <i>Journal of the British Interplanetary Society</i>, Vol. 47, No. 2, February 1994, pp. 73-80.</p> <p>Belbruno, E., "The Dynamical Mechanism of Ballistic Lunar Capture Transfers in the Four-Body Problem From the Perspective of Invariant Manifolds and Hills Regions", <i>The Geometry Center; University of Minnesota</i>, 1994, No. 270, pp. 1-24.</p> <p>Belbruno, E. A., J. K. Miller, "Sun-Perturbed Earth-to-Moon Transfers with Ballistic Capture", <i>Journal of Guidance, Control and Dynamics</i>, August 1993, Volume 16, No.4, pp. 770-775.</p> <p>Graziani, F., M. M. Castronuovo, and P. Teofilatto, "Geostationary Orbits from Mid-Latitude Launch Sites Via Lunar Gravity Assist," An American Astronautical Society Publication reprinted from <i>Spaceflight Dynamics</i>, 1993, Vol. 84, pp. 561-572.</p> <p>Krish V., E. A. Belbruno, W. M. Hollister, "An Investigation into Critical Aspects of a New Form of Low Energy Lunar Transfer, the Belbruno-Miller Trajectories", 1992 AIAA Astrodynamics Conference, 10-12 August 1992, pp. 435-444.</p> <p>Miller, J. K., E. A. Belbruno, "A Method for the Construction of a Lunar Transfer Trajectory Using Ballistic Capture, AAS Paper 91-100", AAS/AIAA Annual Spacelight Mechanics Meeting, Vol. 1, 11-13, February 1991, pp. 97-108.</p> <p>Cook et al., "Return to the Moon: The Lunar Observer Mission", <i>Jet Propulsion Laboratory, California Institute of Technology</i>, 1990, pp. 232-245.</p> <p><i>(initials)</i> Yamakawa et al., "On Earth-Moon Transfer Trajectory with Gravitational Capture", <i>The Institute of Space and Astronautical Science</i>, pp. 1-20.</p> |   |   |                                 |
| EXAMINER   | DATE CONSIDERED<br><i>E - - -</i> <i>7/8/04</i> |   |                                 |

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